

**To:** Roberts, Martha[Roberts.Martha@epa.gov]  
**Cc:** Evans, DavidA[Evans.DavidA@epa.gov]  
**From:** Marten, Alex  
**Sent:** Thur 7/2/2015 1:22:22 AM  
**Subject:** Re: Market power in federal plans proposal

# Non-Responsive

I am around tomorrow. Definitely until SCC stuff goes live at least.

--

Alex L. Marten  
phone: (202) 566-2301  
email: [marten.alex@epa.gov](mailto:marten.alex@epa.gov)

On Jul 1, 2015, at 9:15 PM, Roberts, Martha <[Roberts.Martha@epa.gov](mailto:Roberts.Martha@epa.gov)> wrote:

# Non-Responsive

Sent from my iPhone

On Jul 1, 2015, at 8:13 PM, Evans, DavidA <[Evans.DavidA@epa.gov](mailto:Evans.DavidA@epa.gov)> wrote:

Alex and Martha,

# Non-Responsive

# Non-Responsive

Dave

**From:** Victor, Meg  
**Sent:** Wednesday, July 01, 2015 4:44 PM  
**To:** Stenhouse, Jeb; Marten, Alex; Evans, DavidA  
**Cc:** Fawcett, Allen; Creason, Jared  
**Subject:** RE: Market power in federal plans proposal

Sure thing, I'll find a place for this earlier in the preamble.

Thanks,  
Meg

**From:** Stenhouse, Jeb  
**Sent:** Wednesday, July 01, 2015 4:43 PM  
**To:** Victor, Meg; Marten, Alex; Evans, DavidA  
**Cc:** Fawcett, Allen; Creason, Jared  
**Subject:** RE: Market power in federal plans proposal

# Non-Responsive

# Non-Responsive

**From:** Victor, Meg  
**Sent:** Wednesday, July 01, 2015 4:30 PM  
**To:** Stenhouse, Jeb; Marten, Alex; Evans, DavidA  
**Cc:** Fawcett, Allen; Creason, Jared  
**Subject:** RE: Market power in federal plans proposal

Yes. FYI, here's the revised preamble (with some of the preceding text for context):

# Non-Responsive

# Non-Responsive

**From:** Stenhouse, Jeb  
**Sent:** Wednesday, July 01, 2015 3:37 PM  
**To:** Marten, Alex; Evans, DavidA; Victor, Meg  
**Cc:** Fawcett, Allen; Creason, Jared  
**Subject:** RE: Market power in federal plans proposal

That was fast. Reid is on board with the approach Alex describes. Meg, can you revise the preamble accordingly?

**From:** Stenhouse, Jeb  
**Sent:** Wednesday, July 01, 2015 3:18 PM  
**To:** Marten, Alex; Evans, DavidA  
**Cc:** Fawcett, Allen; Creason, Jared; Victor, Meg  
**Subject:** RE: Market power in federal plans proposal

# Non-Responsive

Jeb

**From:** Marten, Alex  
**Sent:** Wednesday, July 01, 2015 3:10 PM  
**To:** Stenhouse, Jeb; Evans, DavidA  
**Cc:** Fawcett, Allen; Creason, Jared; Victor, Meg  
**Subject:** RE: Market power in federal plans proposal

# Non-Responsive

# Non-Responsive

What do you think?

--

Alex L. Marten  
phone: (202) 566-2301  
email: marten.alex@epa.gov

**From:** Stenhouse, Jeb  
**Sent:** Wednesday, July 01, 2015 11:57 AM  
**To:** Evans, DavidA; Marten, Alex  
**Cc:** Fawcett, Allen; Creason, Jared; Victor, Meg  
**Subject:** Market power in federal plans proposal

Hey Dave and Alex,

**Non-Responsive**

**Non-Responsive**

Jeb

**To:** Wolverton, Ann[wolverton.ann@epa.gov]  
**Bcc:** alex.marten.work@gmail.com[alex.marten.work@gmail.com]  
**From:** Marten, Alex  
**Sent:** Tue 5/19/2015 3:23:58 PM  
**Subject:** FW: Talking point - IMF: FF industry gets \$10M/min in "subsidies"

the climate team might find this interesting if you feel like forwarding.

--

Alex L. Marten  
phone: (202) 566-2301  
email: marten.alex@epa.gov

**From:** Reidmiller, David R [mailto:ReidmillerDR@state.gov]  
**Sent:** Tuesday, May 19, 2015 9:37 AM  
**To:** Epner, Stephanie; Nakagawa, Melanie Y; Allen, Ashley; Johnson, Alisha; Light, Andrew E (S/SECC); Caruso, Randy J; Nogueira, Ricardo P.; Conway, Sarah R; Schuler, Reed M  
**Cc:** Akhtar, Farhan H; Gopstein, Avi M; Marten, Alex; Klemick, Heather; Sheriff, Glenn  
**Subject:** Talking point - IMF: FF industry gets \$10M/min in "subsidies"

This is a rather ambitious study from the IMF estimating a global social cost of carbon (which they term "FF subsidies" – somewhat misleadingly, in my eyes). Notably, they use the "official" USG estimate of \$42/ton C". Welcome commentary from the folks far more enlightened than me in this space.

[http://www.theguardian.com/environment/2015/may/18/fossil-fuel-companies-getting-10m-a-minute-in-subsidies-says-imf?CMP=share\\_btn\\_fb](http://www.theguardian.com/environment/2015/may/18/fossil-fuel-companies-getting-10m-a-minute-in-subsidies-says-imf?CMP=share_btn_fb)

## Fossil fuels subsidised by \$10m a minute, says IMF



‘Shocking’ revelation finds \$5.3tn subsidy estimate for 2015 is greater than the total health spending of all the world’s governments

Fossil fuel companies are benefitting from global subsidies of \$5.3tn a year, equivalent to \$10m a minute every day, according to a startling new estimate by the International Monetary Fund.

The IMF calls the revelation “shocking” and says the figure is an “extremely robust” estimate of the true cost of fossil fuels. The \$5.3tn subsidy estimated for 2015 is greater than the total health spending of all the world’s governments.

The vast sum is largely due to polluters not paying the costs imposed on governments by the burning of coal, oil and gas. These include the harm caused to local populations by air pollution as well as to people across the globe affected by the floods, droughts and storms being driven by climate change.

Nicholas Stern, an eminent climate economist at the London School of Economics, said: “This very important analysis shatters the myth that fossil fuels are cheap by showing just how huge their real costs are. There is no justification for these enormous subsidies for fossil fuels, which distort markets and damages economies, particularly in poorer countries.”

Lord Stern said that even the IMF’s vast subsidy figure was a significant underestimate: “A more complete estimate of the costs due to climate change would show the implicit subsidies for fossil fuels are much bigger even than this report suggests.”

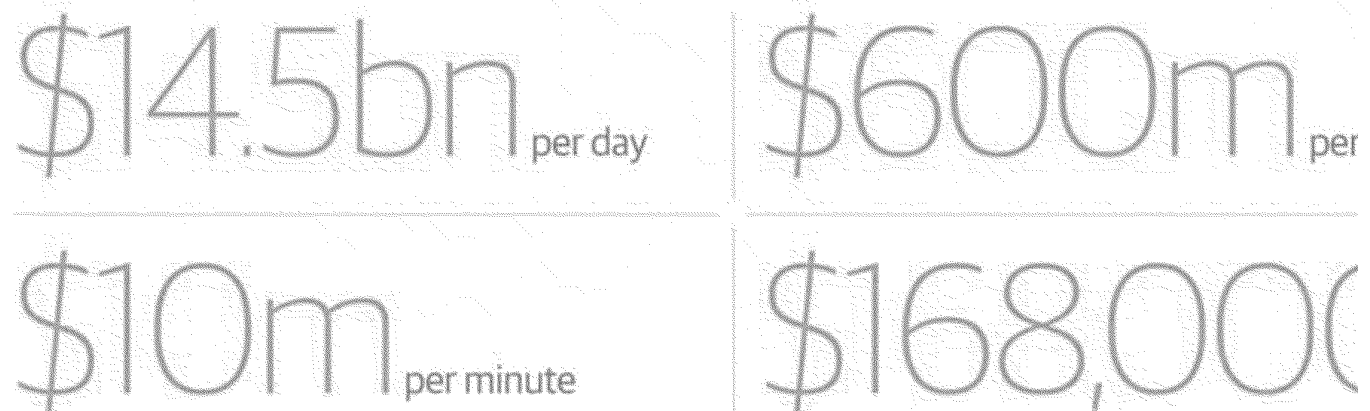
The IMF, one of the world’s most respected financial institutions, said that ending subsidies for fossil fuels would cut global carbon emissions by 20%. That would be a giant step towards taming global warming, an issue on which the world has made little progress to date.

Ending the subsidies would also slash the number of premature deaths from outdoor air pollution by 50% – about 1.6 million lives a year.

Furthermore, the IMF said the resources freed by ending fossil fuel subsidies could be an economic “game-changer” for many countries, by driving economic growth and poverty reduction through greater investment in infrastructure, health and education and also by cutting taxes that restrict growth.

## **Fossil fuel subsidies in numbers**

The IMF says the cost of fossil fuel subsidies in 2015 will be US\$5.3tn or ...



Another consequence would be that the need for subsidies for renewable energy – a relatively tiny \$120bn a year – would also disappear, if fossil fuel prices reflected the full cost of their impacts.

“These [fossil fuel subsidy] estimates are shocking,” said Vitor Gaspar, the IMF’s head of fiscal affairs and former finance minister of Portugal. “Energy prices remain woefully below levels that reflect their true costs.”

David Coady, the IMF official in charge of the report, said: “When the [\$5.3tn] number came out at first, we thought we had better double check this!” But the broad picture of huge global subsidies was “extremely robust”, he said. “It is the true cost associated with fossil fuel subsidies.”

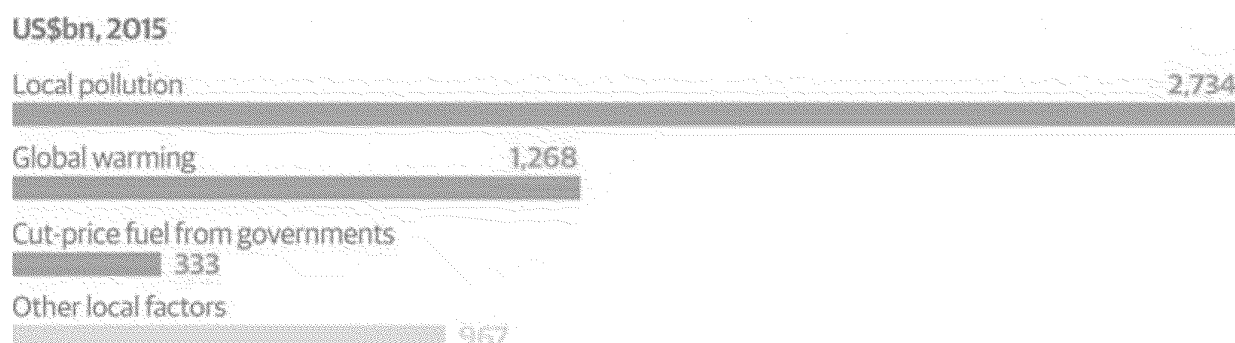
The IMF estimate of \$5.3tn in fossil fuel subsidies represents 6.5% of global GDP. Just over half the figure is the money governments are forced to spend treating the victims of air pollution and the income lost because of ill health and premature deaths. The figure is higher than a 2013 IMF estimate because new data from the World Health Organisation shows the harm caused by air pollution to be much higher than thought.

Coal is the dirtiest fuel in terms of both local air pollution and climate-warming carbon emissions and is therefore the greatest beneficiary of the subsidies, with just over half the total. Oil, heavily used in transport, gets about a third of the subsidy and gas the rest.

The biggest single source of air pollution is coal-fired power stations and China, with its large population and heavy reliance on coal power, provides \$2.3tn of the annual subsidies. The next biggest fossil fuel subsidies are in the US (\$700bn), Russia (\$335bn), India (\$277bn) and Japan (\$157bn), with the European Union

collectively allowing \$330bn in subsidies to fossil fuels.

## Fossil fuel subsidies – how the costs break down



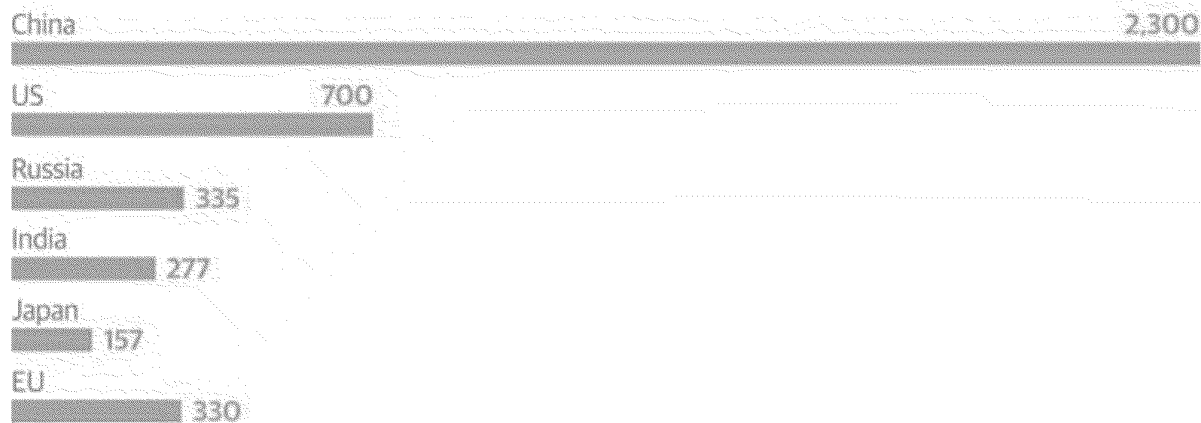
The costs resulting from the climate change driven by fossil fuel emissions account for subsidies of \$1.27tn a year, about a quarter, of the IMF's total. The IMF calculated this cost using an official US government estimate of \$42 a tonne of CO<sub>2</sub> (in 2015 dollars), a price "very likely to underestimate" the true cost, according to the UN's Intergovernmental Panel on Climate Change.

The direct subsidising of fuel for consumers, by government discounts on diesel and other fuels, account for just 6% of the IMF's total. Other local factors, such as reduced sales taxes on fossil fuels and the cost of traffic congestion and accidents, make up the rest. The IMF says traffic costs are included because increased fuel prices would be the most direct way to reduce them.

Christiana Figueres, the UN's climate change chief charged with delivering a deal to tackle global warming at a crunch summit in December, said: "The IMF provides five trillion reasons for acting on fossil fuel subsidies. Protecting the poor and the vulnerable is crucial to the phasing down of these subsidies, but the multiple economic, social and environmental benefits are long and legion."

## Top fossil fuel subsidies by country

US\$bn per year



Barack Obama and the G20 nations called for an end to fossil fuel subsidies in 2009, but little progress had been made until oil prices fell in 2014. In April, the president of the World Bank, Jim Yong Kim, told the Guardian that it was crazy that governments were still driving the use of coal, oil and gas by providing subsidies. “We need to get rid of fossil fuel subsidies now,” he said.

Reform of the subsidies would increase energy costs but Kim and the IMF both noted that existing fossil fuel subsidies overwhelmingly go to the rich, with the wealthiest 20% of people getting six times as much as the poorest 20% in low and middle-income countries. Gaspar said that with oil and coal prices currently low, there was a “golden opportunity” to phase out subsidies and use the increased tax revenues to reduce poverty through investment and to provide better targeted support.

Subsidy reforms are beginning in dozens of countries including Egypt, Indonesia, Mexico, Morocco and Thailand. In India, subsidies for diesel ended in October 2014. “People said it would not be possible to do that,” noted Coady. Coal use has also begun to fall in China for the first time this century.

On renewable energy, Coady said: “If we get the pricing of fossil fuels right, the argument for subsidies for renewable energy will disappear. Renewable energy would all of a sudden become a much more attractive option.”

Shelagh Whitley, a subsidies expert at the Overseas Development Institute, said: “The IMF report is yet another reminder that governments around the world are propping up a century-old energy model. Compounding the issue, our research shows that many of the energy subsidies highlighted by the IMF go toward finding new reserves of oil, gas and coal, which we know must be left in the ground if we are to avoid catastrophic, irreversible climate change.”

Developing the international cooperation needed to tackle climate change has proved challenging but a key message from the IMF's work, according to Gaspar, is that each nation will directly benefit from tackling its own fossil fuel subsidies. "The icing on the cake is that the benefits from subsidy reform – for example, from reduced pollution – would overwhelmingly accrue to local populations," he said.

"By acting local, and in their own best interest, [nations] can contribute significantly to the solution of a global challenge," said Gaspar. "The path forward is clear: act local, solve global."

**David Reidmiller, PhD**

*Chief Climate Scientist*

U.S. Department of State

Office of Global Change (OES/EGC)

Office: +1-202-647-3961

Mobile: +1-202-341-4709

[reidmillerdr@state.gov](mailto:reidmillerdr@state.gov)

<http://www.state.gov/e/oes/climate/index.htm>

This email is UNCLASSIFIED.

**To:** Evans, DavidA[Evans.DavidA@epa.gov]  
**Bcc:** alex.marten.work@gmail.com[alex.marten.work@gmail.com]  
**From:** Marten, Alex  
**Sent:** Mon 5/11/2015 10:01:18 PM  
**Subject:** RE: FYI on steam standard

I'm guessing we hear about this tomorrow from someone reading tonight.

--

Alex L. Marten  
phone: (202) 566-2301  
email: [marten.alex@epa.gov](mailto:marten.alex@epa.gov)

**From:** Evans, DavidA  
**Sent:** Friday, May 08, 2015 8:17 PM  
**To:** Elman, Barry; Roberts, Martha  
**Cc:** Marten, Alex  
**Subject:** FYI on steam standard

FYI. Adapted table from RIA. Not sure this was flagged to Joel/Alex (

**Non-Responsive**

**Non-Responsive**

**Ex 5**



**To:** Elman, Barry[Elman.Barry@epa.gov]; Evans, DavidA[Evans.DavidA@epa.gov]  
**Cc:** Roberts, Martha[Roberts.Martha@epa.gov]  
**Bcc:** alex.marten.work@gmail.com[alex.marten.work@gmail.com]  
**From:** Marten, Alex  
**Sent:** Wed 5/6/2015 4:23:13 PM  
**Subject:** RE: Cost per ton of CO2 reductions

I was just re-looking into this as I think Joel's comment on **Non-Responsive**

**Non-Responsive**

(The spreadsheet is really confusing so that might be slightly off but definitely in the ball park)

--

Alex L. Marten  
phone: (202) 566-2301  
email: marten.alex@epa.gov

**From:** Elman, Barry  
**Sent:** Friday, May 01, 2015 7:28 AM  
**To:** Evans, DavidA; Marten, Alex  
**Cc:** Roberts, Martha  
**Subject:** Cost per ton of CO2 reductions

Dave and Alex,

**Non-Responsive**

**Ex 5**



Thanks,

Barry

**To:** Evans, DavidA[Evans.DavidA@epa.gov]; Elman, Barry[Elman.Barry@epa.gov]  
**Cc:** Roberts, Martha[Roberts.Martha@epa.gov]  
**Bcc:** alex.marten.work@gmail.com[alex.marten.work@gmail.com]  
**From:** Marten, Alex  
**Sent:** Fri 5/1/2015 2:44:35 PM  
**Subject:** RE: Cost per ton of CO2 reductions

## Ex 5

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Alex L. Marten  
phone: (202) 566-2301  
email: [marten.alex@epa.gov](mailto:marten.alex@epa.gov)

**From:** Evans, DavidA  
**Sent:** Friday, May 01, 2015 9:38 AM  
**To:** Marten, Alex; Elman, Barry  
**Cc:** Roberts, Martha  
**Subject:** RE: Cost per ton of CO2 reductions

FWIW, I think Nick said

Ex 5

## Ex 5

d

**From:** Marten, Alex  
**Sent:** Friday, May 01, 2015 7:55 AM  
**To:** Elman, Barry; Evans, DavidA  
**Cc:** Roberts, Martha  
**Subject:** RE: Cost per ton of CO2 reductions

Barry, I am trying to track down an answer to this question. I got stuck because I don't know what they are assuming

Non-Responsive

Non-Responsive

as soon as I get it

I can give you an answer.

--

Alex L. Marten

phone: (202) 566-2301

email: marten.alex@epa.gov

**From:** Elman, Barry

**Sent:** Friday, May 01, 2015 7:28 AM

**To:** Evans, DavidA; Marten, Alex

**Cc:** Roberts, Martha

**Subject:** Cost per ton of CO2 reductions

Dave and Alex,

**Non-Responsive**

**Ex 5**

Thanks,

Barry

**To:** Shouse, Kate[Shouse.Kate@epa.gov]; Sarofim, Marcus[Sarofim.Marcus@epa.gov]  
**Cc:** Macpherson, Alex[Macpherson.Alex@epa.gov]  
**Bcc:** alex.marten.work@gmail.com[alex.marten.work@gmail.com]  
**From:** Marten, Alex  
**Sent:** Wed 4/22/2015 12:11:43 AM  
**Subject:** RE: O&G appendix on methane flaring

**Ex 5**

**Ex 5**

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Alex L. Marten  
phone: (202) 566-2301  
email: marten.alex@epa.gov

**From:** Shouse, Kate  
**Sent:** Tuesday, April 21, 2015 1:42 PM  
**To:** Sarofim, Marcus; Marten, Alex  
**Cc:** Macpherson, Alex  
**Subject:** O&G appendix on methane flaring

# Ex 5

Along those lines, Alex and Marcus, please also take a look at Alex Macpherson's comment and chime in if you disagree with my response (pg 124).

Thanks!

Kate

**To:** Sarofim, Marcus[Sarofim.Marcus@epa.gov]; Macpherson, Alex[Macpherson.Alex@epa.gov]; Shouse, Kate[Shouse.Kate@epa.gov]  
**Bcc:** alex.marten.work@gmail.com[alex.marten.work@gmail.com]  
**From:** Marten, Alex  
**Sent:** Tue 4/21/2015 10:27:32 PM  
**Subject:** RE: O&G appendix on methane flaring

Thank you Marcus! I figured I was missing something. I agree with your summation.

--

Alex L. Marten  
phone: (202) 566-2301  
email: marten.alex@epa.gov

**From:** Sarofim, Marcus  
**Sent:** Tuesday, April 21, 2015 2:21 PM  
**To:** Marten, Alex; Macpherson, Alex; Shouse, Kate  
**Subject:** RE: O&G appendix on methane flaring

**Non-Responsive**

**Non-Responsive**

# **Non-Responsive**

## **Ex 5**

## **Ex 5**

-Marcus

Marcus C. Sarofim, PhD  
phone: 202-343-9993  
WJC East 4410M  
Environmental Scientist  
Climate Science & Impacts Branch

**From:** Marten, Alex  
**Sent:** Tuesday, April 21, 2015 2:08 PM  
**To:** Macpherson, Alex; Shouse, Kate; Sarofim, Marcus  
**Subject:** RE: O&G appendix on methane flaring

I was under the impression it was the same issue, but maybe I am missing something.

**Non-Responsive**

**Non-Responsive**

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Alex L. Marten  
phone: (202) 566-2301  
email: [marten.alex@epa.gov](mailto:marten.alex@epa.gov)

**From:** Macpherson, Alex  
**Sent:** Tuesday, April 21, 2015 1:49 PM  
**To:** Shouse, Kate; Sarofim, Marcus; Marten, Alex  
**Subject:** RE: O&G appendix on methane flaring

Yes, **Non-Responsive**

**Non-Responsive** so I don't think it is relevant here, unless I'm misunderstanding something.

While I have y'all's attention...is this discussion relevant for **Non-Responsive**

**Non-Responsive**

Alex

**From:** Shouse, Kate



**Sent:** Tuesday, April 21, 2015 1:42 PM  
**To:** Sarofim, Marcus; Marten, Alex  
**Cc:** Macpherson, Alex  
**Subject:** O&G appendix on methane flaring

# Non-Responsive

Along those lines, Alex and Marcus, please also take a look at Alex Macpherson's comment and chime in if you disagree with my response (pg 124).

Thanks!

Kate

**To:** Shadbegian, Ron[Shadbegian.Ron@epa.gov]  
**Bcc:** alex.marten.work@gmail.com[alex.marten.work@gmail.com]  
**From:** Marten, Alex  
**Sent:** Wed 4/15/2015 6:24:01 PM  
**Subject:** FW: notes for monday's briefing: DOI stream protection rule  
2015 04 15 DRAFT NCEE Comments DoI Stream Protection Rule - alm.docx

--

Alex L. Marten  
phone: (202) 566-2301  
email: [marten.alex@epa.gov](mailto:marten.alex@epa.gov)

**From:** Marten, Alex  
**Sent:** Wednesday, April 15, 2015 12:52 PM  
**To:** Jenkins, Robin  
**Cc:** Ferris, Ann  
**Subject:** RE: notes for monday's briefing: DOI stream protection rule

I've included some comments in the attached.

**Non-Responsive**

**Non-Responsive**

**Non-Responsive**

You should feel free to drop any you don't find helpful, but you may want to give my suggested edits to the first benefits bullet some consideration.

Happy to talk about any of them if you want.

--

Alex L. Marten  
phone: (202) 566-2301  
email: [marten.alex@epa.gov](mailto:marten.alex@epa.gov)

**From:** Jenkins, Robin  
**Sent:** Wednesday, April 15, 2015 11:47 AM

**To:** Marten, Alex  
**Cc:** Ferris, Ann  
**Subject:** FW: notes for monday's briefing: DOI stream protection rule

Alex – Your comments would also be appreciated.

Robin

**From:** Jenkins, Robin  
**Sent:** Wednesday, April 15, 2015 11:41 AM  
**To:** Ferris, Ann  
**Cc:** Shadbegian, Ron  
**Subject:** RE: notes for monday's briefing: DOI stream protection rule

Ann,

Attached is a new set of draft comments on DOI's rule. I've highlighted two sentences where I'm unsure of our final plan. Of course please feel free to comment.

I'll also prepare a set of bullets to share with Joel in case a briefing is scheduled.

Robin

**From:** Ferris, Ann  
**Sent:** Wednesday, April 15, 2015 7:07 AM  
**To:** Shadbegian, Ron; Jenkins, Robin  
**Subject:** Fw: notes for monday's briefing: DOI stream protection rule

Hi Ron & Robin,

I started revising the draft comments to reflect our discussion with Al and Alex Marten. But didn't email it to myself -- it's on my laptop and I'm at home. I'm working on recreating what I did earlier now (outline -- see email text below), before I head off to school drop-off and the doctor's.

I'm happy to do this after seeing the doctor this morning -- otherwise, if we hear that Joel would like our comments & a briefing earlier, could one of you please revise the comments?

Thanks,

Ann

Draft outline & format for comments

#### 1. Costs

- Cost model (compliance costs)

# Non-Responsive

# Non-Responsive

## 2. Benefits

- Climate benefits:

## Ex 5

- Human Health benefits:

# Non-Responsive

## 3. Impacts

- Employment:

## Non-Responsive

Thanks,

Ann

---

**From:** Ferris, Ann  
**Sent:** Friday, April 10, 2015 4:16 PM  
**To:** Marten, Alex; McGartland, Al; Shadbegian, Ron; Jenkins, Robin  
**Cc:** Durham, Natalie  
**Subject:** notes for monday's briefing: DOI stream protection rule

Hi all,

I've attached 3 documents / sets of notes for our briefing Monday, on the DOI stream protection rule:

- (1) **Non-Responsive**
- (2)
- (3) Alex's SCC calcs.

These will form the basis for our discussion Monday and written NCEE comments. We'll plan to write them up after Monday's briefing & send early next week.

Thanks,

Ann

564-3207